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(54) Title: ENDOVASCULAR PROSTHESIS WITH IMPROVED SEALING MEANS FOR ANEURYSMAL ARTERIAL DISEASE
AND METHOD OF USE

(57) Abstract

An intraluminal prosthesis for use in a blood vessel, e.g., the abdominal aorta, at which an aneurysm defining an aneurysmal space is located. The prosthesis basically comprises an expandable sleeve, an outer balloon, a pair of sealing rings or a sealing cover, a pair of expandable anchoring stents, and plural expandable support stents. The sleeve is an elongated tubular member defining a passageway having a pair of open ends for conveying blood therethrough. The outer balloon is disposed about the sleeve and is arranged to be filled with a fluid, e.g., a gel or saline, to cause it to extend outward to fill the aneurysmal space. The sleeve is arranged to be expanded and held in that state by the stents. The anchoring stents fixedly secure the prosthesis to the interior of the vessel, with the ends of the sleeve being sealed by the sealing rings or sealing cover to portions of the vessel on respective sides of the aneurysm to preclude the ingress of blood between the outer balloon and the interior of the vessel at the aneurysm, while the blood is conveyed through the passageway, and to preclude the egress of material, e.g., an embolus, from between the outer balloon and the interior of the vessel at the situs of the aneurysm.

